### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015997 Address: 333 Burma Road **Date Inspected:** 21-Jul-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure OSM Arrival Time: 1900 **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower and OBG Components

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

#### Bay 11

This QA Inspector proceeded to Bay 11 in response to ZPMC Inspection Notification #06245 for magnetic particle testing (MT) inspection of the following:

This QA Inspector performed random visual testing (VT) and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as follows:

#### SP3069-001

The weld designations reviewed were: 003, 005, 006, 011, 013, 014, 016, 022, 023, 024, 031, 032, 034, 041, 042, 044.

#### SP3070-001

The weld designations reviewed were: 001-012, 013, 015, 018, 019, 021, 025~034, 039, 040, 043, 044, 048, 050, 055, 072, 078, 080.

# SP3105-001

The weld designations reviewed were: 003, 005, 006, 011, 013, 014, 016, -22, 023, 024, 031, 032, 034, 041, 042, 044.

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SP3106-001

The weld designations reviewed were: 009, 010, 021, 022, 028, 029.

No apparent indications were observed.

This QA Inspector also randomly observed the following work in progress in Bay 11:

SMAW welding of weld joint ESD1-TL5-2E/F-21A located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 046769, 046709. QC was identified at ZPMC CWI Liu Yang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Mao Bin Bin (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Wang Zhang Hua.

SMAW welding of weld joint ESD1-TL5-2E/F-20B located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 044541, 044551. QC was identified at QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b. Also at this location and appearing to be monitoring the welding operation was ABF Representative Wang Zhang Hua.

Bay 10

This QA Inspector randomly observed no apparent welding work in progress in Bay 10.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of temporary alignment plates located outside PCMK 9CW/9DW, at deck plate transverse weld joint. Welder was identified as 040649. QC was identified as ZPMC CWI An Qing Xiang (QC2). Welding variables recorded by QC2 appeared to comply with WPS-B-T-2132.

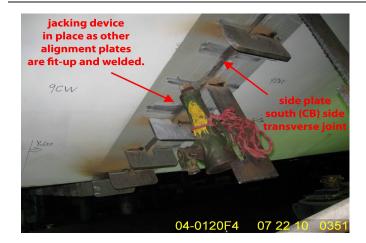
SMAW welding of temporary alignment plates located inside PCMK 9CW/9DW, at deck plate transverse weld joint. Welder was identified as 500245. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-P-2114-FCM-1.

SMAW welding of temporary alignment plates located outside PCMK 9CW/9DW, at side plate transverse weld joint, south (crossbeam) side. Some of the plates were configured for jacking and mechanical jack was installed on one temporary alignment plate. See photo below. Welder was identified as 500376. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-P-2114-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Goulet,George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer